IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No. 8173
Charles Edward ANDERSON, IV	Art Unit: 2441
Application No. 10/080,671	Examiner: Chirag R. PATEL
Filed: February 25, 2002	Atty. Docket: 1875.1990000
For: **System, Method And Computer Program Product For Selectively Caching Domain Name System Information On A Network Gateway**	

Brief on Appeal Under 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

A Notice of Appeal from the non-final rejection dated January 22, 2009 of claims 1-50 is filed concurrently with this Appeal Brief. The instant non-final rejection is responsive to Appellant's Appeal Brief of September 5, 2008 and Supplemental Appeal Brief of October 20, 2008. Appellant has standing to bring this Appeal under M.P.E.P. § 1207.04, as prosecution has been reopened prior to a decision on the merits by the Board. Appellant hereby files one copy of this Appeal Brief, and requests that the previously paid fee set forth in 37 C.F.R. § 41.20(b)(2) be applied to this Appeal.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Table of Contents

I. Real Party in Interest (37 C.F.R. § 41.37(c)(1)(i))

The real party in interest in this appeal is Broadcom Corporation ("Broadcom"), having its principal place of business at 5300 California Avenue, Irvine, California 92617. An Assignment assigning all right, title, and interest in and to the patent application from the inventor to Broadcom was recorded in the United States Patent and Trademark Office on February 25, 2002, at reel 012634, frame 0765.

II. Related Appeals and Interferences (37 C.F.R. § 41.37(c)(1)(ii))

To the best of the knowledge of Appellant, Appellant's legal representative, and Appellant's assignee, there are no other appeals, interferences, or judicial proceedings which are related to, directly affect, or be directly affected by or have a bearing on a decision by the Board of Patent Appeals and Interferences ("the Board") in the pending appeal.

III. Status of Claims (37 C.F.R. § 41.37(c)(1)(iii))

This application was originally filed as U.S. Application No. 10/080,671 on February 25, 2002, with 44 claims. In response to an Office Action mailed September 26, 2005, Appellant filed a Reply Under 37 C.F.R. § 1.111 on February 24, 2006, in which no changes to the claims were made. In response to a Final Office Action mailed May 17, 2006, Appellant filed an Amendment and Reply Under 37 C.F.R. § 1.116 on August 17, 2006, in which claims 1-44 were amended, together with a Request for Continued Examination. In response to an Office Action mailed March 19, 2007, correcting an Office Action mailed November 14, 2006, Appellant filed an Amendment and Reply Under 37 C.F.R. § 1.111 on September 19, 2007, in which claims 1-4, 10-13, 20-31, 35, 36, and 39 were amended, and new claims 45-50 were added. In response to a Final Office Action mailed October 25, 2007, Appellant filed a Reply Under 37 C.F.R. § 1.116, in which no changes to the claims were made, together with a Request for Continued Examination. The Examiner issued a Final Office Action on January 8, 2008, from which Appellant filed an Appeal Brief on September 5, 2008, and a Supplemental Appeal Brief on October 20, 2008. The Examiner reopened prosecution and issued a non-final Office Action on January 22, 2008, from which Appellant currently appeals.

Claims 1-50 are pending. Claims 1-50 are rejected and are being appealed. A copy of the claims on appeal can be found in the attached Claims Appendix as required under 37 C.F.R. § 41.37(c)(1)(viii).

IV. Status of Amendments (37 C.F.R. § 41.37(c)(1)(iv))

No amendments have been filed subsequent to the Final Office Action dated January 8, 2008. All amendments presented in the Amendment and Reply Under 37 C.F.R. § 1.116, filed August 17, 2006, and the Amendment and Reply Under 37 C.F.R. § 1.111, filed September 19, 2007, have been entered.

V. Summary of Claimed Subject Matter (37 C.F.R. § 41.37(c)(1)(v))

A concise explanation of the subject matter defined in each of the independent claims on appeal (i.e., claims 1, 10, 21, 22, 30, and 39) is provided below. The explanation refers to the specification, as presented in the patent application publication, by paragraph number and to the drawings by reference characters. Reference is made to supporting embodiments disclosed in the specification, although it is understood that the claims should not be limited to the specific embodiments to which reference is made.

Claims 1, 10, 21, 22, 30, and 39 are broadly directed to a system, method, or computer program product for identifying frequently accessed domain names in a customer premises equipment ("CPE"). FIG. 8 of the Instant Published Application is a flowchart depicting steps by which a search application running at a CPE is able to identify frequently accessed domain names, in accordance with an embodiment of the present invention. (Para. [0098]; FIG. 8). A search application searches files on the CPE that hold frequently accessed domain names such as, for example, files associated with a web browser. (Para. [0099]). These domain names are then provided to a gateway device. (Para. [0100]).

A. Claim 1

Claim 1 recites a method for identifying frequently accessed domain names in a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) that includes a memory (e.g., FIG. 4, elements 446 and 448) and a communication interface (e.g., FIG. 4, element 464). The frequently accessed domain names are provided to a network gateway (e.g., FIG. 2, element 204) for use in domain name caching (e.g., FIG. 2, element 216; Para. [0100]). The method comprises the steps of:

- searching files in the memory to identify the frequently accessed domain names (e.g., FIG. 8, element 804; Para. [0098] - [0099]); and

- providing the frequently accessed domain names to the communication interface for transmission to the network gateway (e.g., FIG. 8, element 806; Para. [0100]) over a communication path (e.g., FIG. 4, element 466).

The files in the memory comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]).

B. Claim 10

Claim 10 recites a method for selectively caching domain name system information on a network gateway (e.g., FIG. 2, element 204) that includes a cache (e.g., FIG. 2, element 216), wherein the network gateway is attached to a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) that includes a memory (e.g., FIG. 4, elements 446 and 448). The method comprises the steps of:

- searching files in memory to identify a frequently accessed domain name (e.g., FIG. 8, element 804; Para. [0098] - [0099]);

- providing the frequently accessed domain name from the customer premises equipment to the network gateway (e.g., FIG. 8, element 806; Para. [0100]);

- generating, in the gateway, a domain name system query that includes the frequently accessed domain name (e.g., FIG. 8, element 808; Para. [0103]);

- transmitting the domain name system query from the network gateway to a network (e.g., FIG. 2, element 206) for resolution (e.g., FIG. 8, element 810; Para. [0104]);

- receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address (e.g., FIG. 8, element 812; Para. [0105]); and

- storing the frequently accessed domain name and the corresponding IP address in the cache (e.g., FIG. 8, element 814; Para. [0105]).

The files in the memory comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]).

C. Claim 21

Claim 21 recites a method for selectively caching domain name system information on a network gateway (e.g., FIG. 2, element 204) that includes a cache (e.g., FIG. 2, element 216), wherein the network gateway is attached to a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) that includes a memory (e.g., FIG. 4, elements 446 and 448). The method comprises the steps of:

- searching files in memory to identify a frequently accessed domain name (e.g., FIG. 9, element 904; Para. [0098] - [0099] and [0107]);

- generating, in the customer premises equipment, a domain name system query that includes the frequently accessed domain name (e.g., FIG. 9, element 906; Para. [0108]);

- providing the domain name system query from the customer premises equipment to the network gateway (e.g., FIG. 9, element 908; Para. [0108]);

- transmitting the domain name system query from the network gateway to a network (e.g., FIG. 2, element 206) for resolution (e.g., FIG. 9, element 910; Para. [0109]);

- receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address (e.g., FIG. 9, element 912; Para. [0110]); and

- storing the frequently accessed domain name and the corresponding IP address in the cache (e.g., FIG. 9, element 914; Para. [0110]).

The files in the memory comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]).

D. Claim 22

Claim 22 recites a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) comprising:

- a memory (e.g., FIG. 4, elements 446 and 448) that stores files, wherein the files comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]);

- a communication interface (e.g., FIG. 4, element 464) for transmitting information to a network gateway (e.g., FIG. 2, element 204); and

- a processor coupled to the memory and communication interface (e.g., FIG. 4, element 444).

The processor is configured to search the files in the memory to identify frequently accessed domain names (e.g., FIG. 9, element 904; Para. [0098] - [0099] and [0107]) and to provide the frequently accessed domain names to the communication interface for transmission to the network gateway (e.g., FIG. 9, element 908; Para. [0108]).

E. Claim 30

Claim 30 recites a system for selectively caching domain name system information in a network gateway. The system comprises:

- a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) including a memory (e.g., FIG. 4, elements 446 and 448) that stores files (e.g., Para. [0099]), a communication interface (e.g., FIG. 4, element 464) for transmitting information over a communication path (e.g., FIG. 4, element 466), and a CPE processor (e.g., FIG. 4, element 444) coupled to the memory and the communication interface, wherein the CPE processor is configured to search the files to identify a frequently accessed domain name (e.g., FIG. 8, element 804; Para. [0098] - [0099]) and to provide the frequently accessed domain name to the communication interface for transmission over the communication path (e.g., FIG. 8, element 806; Para. [0100]); and
- a network gateway (e.g., FIG. 2, element 204; FIG. 5, element 204a) including a cache (e.g., FIG. 2, element 216; FIG. 5, element 528), a CPE interface for receiving information over the communication path (e.g., FIG. 5, elements 508, 510, and 512; Para. [0075]), a network interface for transmitting information over a network (e.g., FIG. 5, element 516; Para. [0063]), and a gateway processor (e.g., FIG. 5, element 518) coupled to the cache, the CPE interface, and the network interface, the gateway processor configured to receive the frequently accessed domain name from the

communication path via the CPE interface (e.g., Para. [0100] - [0102]), to generate a domain name system query that includes the frequently accessed domain name (e.g., FIG. 8, element 808; Para. [0103]), to provide the query to the network interface for transmission to a network (e.g., FIG. 2, element 206) for resolution (e.g., FIG. 8, element 810; Para. [0104]), to receive a response to the query from the network via the network interface that includes the frequently accessed domain name and a corresponding IP address (e.g., FIG. 8, element 812; Para. [0105]), and to store the frequently accessed domain name and the corresponding IP address in the cache (e.g., FIG. 8, element 814; Para. [0105]).

The files in the memory comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]).

F. Claim 39

Claim 39 recites a computer program product (e.g., Para. [0056]) comprising a computer usable medium (e.g., Para. [0056]) having computer program logic (e.g., Para. [0057]) for enabling a processor (e.g., FIG. 4, element 444) in a customer premises equipment (e.g., FIG. 2, elements 202, 212, and 214) to identify frequently accessed domain names to be provided to a network gateway (e.g., FIG. 2, element 204) for use in domain name system caching, the customer premises equipment further including a memory (e.g., FIG. 4, elements 446 and 448) and a communication interface (e.g., FIG. 4, element 464). The computer program product comprises:

- means for enabling the processor to search files in the memory to identify the frequently accessed domain names (e.g., FIG. 8, element 804; Para. [0098] - [0099]); and

- means for enabling the processor to provide the frequently accessed domain names to the communication interface for transmission to the network gateway (e.g., FIG. 8, element 806; Para. [0100]; *see also* FIG. 4, element 466, "communication path").

The files in the memory comprise application data files that hold frequently accessed domain names (e.g., Para. [0099]).

Each of independent claims 1, 10, 21, 22, 30, and 39 find support ***at least*** in the above-referenced sections of the Published Application. The remaining claims draw similar support from the aforementioned sections of the Published Application.

VI. Grounds of Rejection To Be Reviewed on Appeal (37 C.F.R. § 41.37(c)(1)(vi))

The Examiner has rejected claims 1-9, 22-29, 39-45, 48, and 50 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,041,360 to Himmel et al. ("Himmel").

The Examiner has rejected claims 10-21, 30-38, 46, 47, and 49 U.S.C. § 103(a) as allegedly being obvious over Himmel in view of U.S. Patent Application Publication No. 2002/0065936 to Schiuma ("Schiuma").

Accordingly, the grounds of rejection to be reviewed on appeal are:

A. Ground 1

Whether claims 1-9, 22-29, 39-45, 48, and 50 would have been anticipated by U.S. Patent No. 6,041,360 to Himmel et al. under 35 U.S.C. § 102(e).

B. Ground 2

Whether claims 10-21, 30-38, 46, 47, and 49 would have been obvious over U.S. Patent No. 6,041,360 to Himmel et al. in view of U.S. Patent Application Publication No. 2002/0065936 to Schiuma under 35 U.S.C. § 103(a).

VII. Argument (37 C.F.R. § 41.37(c)(1)(vii))

There are two separate grounds of rejection to be reviewed on appeal.

A. Rejection of claims 1-9, 22-29, 39-45, 48, and 50 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,041,360 to Himmel et al.

An Office Action was mailed on January 22, 2009 rejecting claims 1-9, 22-29, 39-45, 48, and 50 under 35 U.S.C. § 102(e) as allegedly being anticipated by Himmel.

To establish a prima facie case of anticipation under §102(e), the Examiner must show that "each an every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Because the Examiner has failed to establish that each and every element is described in Himmel, the rejection of claims 1-9, 22-29, 39-45, 48, and 50 must be reversed.

1. The Rejection of Claims 1, 22, and 39 is in Error and Must be Reversed

Independent claim 1 recites, *inter alia*, "the frequently accessed domain names to be provided to a network gateway for use in domain name system caching" and "providing the frequently accessed domain names to the communication interface for transmission to the network gateway over a communication path."

In the case of claim 1, the preamble informs the meaning of the claim term "network gateway," as any reference subsequent to the preamble is made to "***the*** network gateway." As stated in the claim, the "frequently accessed domain names" are provided to the "communication interface for transmission to the network gateway," which in turn uses the frequently accessed domain names "for use in domain name system caching."

In rejecting claim 1, the Examiner does not address the claim feature of "domain name system caching" at a network gateway. (Office Action, p. 3). Instead, the Examiner

simply equates the network gateway of claim 1 with the "I/O controller 40" of Himmel. (Office Action, p. 3).

Himmel states that the "I/O controller 40 such as a Token Ring Adapter enables communication over a network 46 to other similarly configured data processing systems." (Himmel, col. 4, ll. 51-53). This I/O controller of Himmel is simply a communication interface, with no disclosure whatsoever of a "network gateway," let alone a network gateway capable of "domain name system caching," as recited in claim 1. As the instant Specification clarifies, by way of example and not limitation, "the network gateway 204 facilitates the bi-directional transfer of IP packets" between multiple CPE devices and an IP network, and "further comprises a DNS cache for caching DNS information that is relevant to applications running on one or more of the attached CPE devices." (Published Application at [0047]). It is clear, therefore, that Himmel does not disclose providing any information to the I/O controller 40 of Himmel for use in "domain name system caching" as recited in claim 1, as I/O controller 40 lacks DNS caching capabilities which are nowhere found in Himmel.

Appellant further notes that, although the Examiner did not reject claim 1 in combination with the Schiuma reference, the Schiuma reference merely discloses caching at a web browser (*see, e.g.,* Schiuma at [0032]; Office Action, p. 8 (rejecting claim 10)), and also does not disclose a "network gateway for use in domain name system caching."

Accordingly, Himmel does not disclose "the frequently accessed domain names to be provided to a network gateway for use in domain name system caching" and "providing the frequently accessed domain names to the communication interface for transmission to the network gateway over a communication path," as recited in claim 1. Therefore, Himmel does not disclose each and every feature of claim 1.

Independent claims 22 and 39 each recite similar features as independent claim 1, using respective language. For similar reasons as those provided for independent 1, Himmel

does not disclose each and every feature of independent claims 22 and 39. Accordingly, the Examiner's rejection of claims 1, 22, and 39 is in error and must be reversed.

2. The Rejection of Claims 2 and 3 is in Error and Must be Reversed

Dependent claims 2 and 3 are not anticipated by Himmel for at least the same reasons as independent claim 1, from which they depend.

Dependent claims 2 and 3 further recite the initiation of steps (a) and (b) "during start-up of the operating system" and "periodically by the operating system," respectively. In rejecting claims 2 and 3, the Examiner makes reference to Himmel at col. 4, line 54 - col. 5, line 6. (Office Action, pp. 3-4). This selection of Himmel merely describes the physical storage of a set of instructions, and says nothing of how ***any*** steps, let alone steps corresponding to steps (a) and (b) of claims 2 and 3, are initiated. Therefore, Himmel does not disclose each and every feature of claims 2 and 3.

Accordingly, the Examiner's rejection of claims 2 and 3 is in error and must be reversed.

3. The Rejection of Claim 4 is in Error and Must be Reversed

Dependent claim 4 is not anticipated by Himmel for at least the same reasons as independent claim 1, from which it depends.

Dependent claim 4 further recites the performance of steps (a) and (b) "in response to the execution of an application by a user of the customer premises equipment." In rejecting claim 4, the Examiner makes reference to Himmel at col. 5, ll. 7-12. (Office Action, p. 4). This selection of Himmel merely states that the disclosure is intended to be interpreted as not requiring any "action by a human operator," and says nothing of how ***any*** steps, let alone steps corresponding to steps (a) and (b) of claim 4, "occur in response to the execution of an

application by a user of the customer premises equipment." Therefore, Himmel does not disclose each and every feature of claim 4.

Accordingly, the Examiner's rejection of claim 4 is in error and must be reversed.

4. The Rejection of Claims 6, 26, and 41 is in Error and Must be Reversed

Dependent claims 6, 26, and 41 are not anticipated by Himmel for at least the same reasons as independent claims 1, 22, and 39, from which they depend.

Dependent claim 6 further recites, "wherein step (a) [the step of searching files in memory] comprises searching application data files associated with an electronic mail application." In rejecting claim 6, the Examiner makes reference to Himmel at col. 5, ll. 59-67. (Office Action, p. 4). This selection of Himmel merely states that a "Multipurpose Internet Mail Extension (MIME) type information, e.g., text/html, image/gif, for the given document is recognized," and says nothing of searching files in memory comprising "searching application data files ***associated with an electronic mail application***." It is well known in the art that MIME type information is used beyond e-mail applications, and Himmel is using the document's MIME type information not for an e-mail application, but for a web server application. (Himmel, col. 5, ll. 41-67 ("the server performs various tests on the resulting path to ensure that the given client may retrieve the document.")). Even assuming, *arguendo*, that documents with MIME type information are associated with e-mail, to which Appellant does not acquiesce, there is no disclosure in Himmel that there has been any "searching" nor that any application data files are associated with an electronic mail "application," as recited in claim 6. Therefore, Himmel does not disclose each and every feature of claim 6.

Claims 26 and 41 each recite similar features as claim 6, using respective language, and therefore Himmel similarly does not disclose each and every feature of claims 26 and 41.

Accordingly, the Examiner's rejection of claims 6, 26, and 41 is in error and must be reversed.

5. The Rejection of Claims 7, 27, and 42 is in Error and Must be Reversed

Dependent claims 7, 27, and 42 are not anticipated by Himmel for at least the same reasons as independent claims 1, 22, and 39, from which they depend.

Dependent claim 7 further recites, "wherein step (b) [the step of providing the frequently accessed domain names to the communication interface] comprises packetizing the frequently accessed domain names and providing the packetized information to the communication interface." In rejecting claim 7, the Examiner makes reference to Himmel at col. 1, ll. 41-53. (Office Action, p. 4). This selection of Himmel merely states the basic functionality of an HTML-compatible browser, and says nothing of "packetizing the frequently accessed domain names" or of "providing the packetized information to the communication interface," as recited in claim 7. Therefore, Himmel does not disclose each and every feature of claim 7.

Claims 27 and 42 each recite similar features as claim 7, using respective language, and therefore Himmel similarly does not disclose each and every feature of claims 27 and 42.

Accordingly, the Examiner's rejection of claims 7, 27, and 42 is in error and must be reversed.

6. The Rejection of Claims 8, 28, and 43 is in Error and Must be Reversed

Dependent claims 8, 28, and 43 are not anticipated by Himmel for at least the same reasons as independent claims 1, 22, and 39, from which they depend.

Dependent claim 8 further recites, "wherein step (b) [the step of providing the frequently accessed domain names to the communication interface] comprises storing the

frequently accessed domain names in a management information base and providing the management information base to the communication interface." In rejecting claim 8, the Examiner makes reference to Himmel at col. 10, ll. 10-15 and FIG. 6A. (Office Action, p. 5). This selection of Himmel merely describes the organization of a bookmark list by "folders or topics." Even assuming, *arguendo*, that the bookmark list of Himmel is the same as a "management information base," to which Appellant does not acquiesce, Himmel does not disclose "providing the management information base to the communication interface." Therefore, Himmel does not disclose each and every feature of claim 7.

Claims 28 and 43 each recite similar features as claim 8, using respective language, and therefore Himmel similarly does not disclose each and every feature of claims 28 and 43.

Accordingly, the Examiner's rejection of claims 8, 28, and 43 is in error and must be reversed.

7. The Rejection of Claims 5, 9, 23-25, 29, 40, 44, 45, 48, and 50 is in Error and Must be Reversed

Dependent claims 5, 9, 23-25, 29, 40, 44, 45, 48, and 50 are not anticipated by Himmel for at least the same reasons as independent claims 1, 22, and 39 from which they depend, and further in view of their own respective features. Accordingly, the Examiner's rejection of claims 5, 9, 23-25, 29, 40, 44, 45, 48, and 50 is in error and must also be reversed.

B. Rejection of claims 10-21, 30-38, 46, 47, and 49 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,041,360 to Himmel et al. in view of U.S. Patent Application Publication No. 2002/0065936 to Schiuma.

The Office Action mailed on January 22, 2009 rejected claims 10-21, 30-38, 46, 47, and 49 under 35 U.S.C. § 103(a) as allegedly being obvious over Himmel in view of Schiuma.

1. The Examiner Bears the Burden of Establishing a Prima Facie Case of Obviousness

The Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-73, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984). The Examiner has failed to meet this burden. Without more evidence of unpatentability, Appellant is entitled to grant of a patent. In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The United States Supreme Court recently addressed the issue of obviousness and hindsight reasoning. In KSR v. Teleflex, No. 04-1350, slip op. at 14 (U.S. April 30, 2007), the United States Supreme Court reiterated that, "'[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness'" (quoting from In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)). Further, the Supreme Court warned that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. . . . This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." Id. at 14-15. The Supreme Court also confirmed that, "[a] factfinder should be aware, of course, of the distinction caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." Id. at 17.

The Supreme Court's opinion in KSR did not change the Examiner's burden of establishing a prima facie case of obviousness as articulated by the Federal Circuit in Piasecki. In this case, the Examiner's rejection over Himmel in view of Schiuma fails to disclose all of the features of the claimed embodiments. Accordingly, Appellant appeals the Examiner's rejection on the ground that a prima facie case of obviousness has not been established.

2. The Obviousness Rejection with Respect to Claims 10-21, 30-38, 46, 47, and 49 Is in Error and Must Be Reversed

Independent claim 10 recites, *inter alia*, "a network gateway that includes a cache", "receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address", and "storing the frequently accessed domain name and the corresponding IP address in the cache."

As previously noted with regard to the Examiner's rejection of claim 1, the Examiner equates the gateway of claim 10 with the "I/O controller 40" of Himmel. (Office Action, p. 7). Himmel states that the "I/O controller 40 such as a Token Ring Adapter enables communication over a network 46 to other similarly configured data processing systems." (Himmel, col. 4, ll. 51-53). This I/O controller of Himmel is simply a communication interface, with no disclosure whatsoever of a "network gateway," let alone a network gateway capable of "storing the frequently accessed domain name and the corresponding IP address in the cache," as recited in claim 10.

It is further noted that the Examiner does not appear to acknowledge that the cache is included in the network gateway itself, as clearly recited in claim 10. The Examiner acknowledges that Himmel does not teach or suggest the feature of "storing the frequently accessed domain name and the corresponding IP address in the cache," as recited in claim 10, and instead relies on Schiuma as allegedly teaching or suggesting the missing feature. However, Schiuma is directed to caching DNS responses within a browser, and says nothing of "storing the frequently accessed domain name ... in the cache" where the cache is included in the network gateway itself. (Schiuma at [0032]). For at least these reasons, the Examiner has failed to establish a *prima facie* case of obviousness of claim 10 over Himmel and Schiuma.

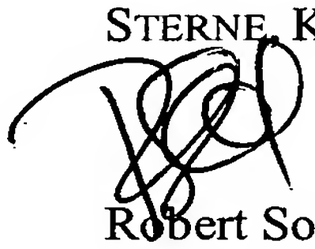
Independent claims 21 and 30 each recite similar features as claim 10, using respective language, and are also not rendered obvious by the combination of Himmel and Schiuma for at least the same reasons advanced with regard to claim 10. Claims 11-20, 31-38, 46, 47, and 49 each depend from one of claims 10, 21, and 30, and are also not rendered obvious by the combination of Himmel and Schiuma for at least the same reasons as claims 10, 21, and 30, and further in view of their own respective features. Accordingly, the Examiner's rejection of claims 10-21, 30-38, 46, 47, and 49 is in error and must be reversed.

C. Conclusion

The subject matter of claims 1-50 is patentable over the cited prior art because the Examiner has failed to make a prima facie case of anticipation or obviousness. Therefore, Appellant respectfully requests that the Board reverse the Examiner's final rejection of these claims under 35 U.S.C. §§ 102 and 103 and remand this application for issue.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl
Attorney for Appellant
Registration No. 36,013

Date: 4/22/09

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
953679_1.DOC

VIII. Claims Appendix (37 C.F.R. § 41.37(c)(1)(viii))

1. A method for identifying frequently accessed domain names in a customer premises equipment that includes a memory and a communication interface, the frequently accessed domain names to be provided to a network gateway for use in domain name system caching, comprising the steps of:

(a) searching files in the memory to identify the frequently accessed domain names; and

(b) providing the frequently accessed domain names to the communication interface for transmission to the network gateway over a communication path;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

2. The method of claim 1, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated during start-up of the operating system.

3. The method of claim 1, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated periodically by the operating system.

4. The method of claim 1, wherein steps (a) and (b) occur in response to the execution of an application by a user of the customer premises equipment.

5. The method of claim 1, wherein step (a) comprises searching application data files associated with a Web browser application.

6. The method of claim 1, wherein step (a) comprises searching application data files associated with an electronic mail application.

7. The method of claim 1, wherein step (b) comprises packetizing the frequently accessed domain names and providing the packetized information to the communication interface.

8. The method of claim 1, wherein step (b) comprises storing the frequently accessed domain names in a management information base and providing the management information base to the communication interface.

9. The method of claim 1, wherein step (b) comprises generating a domain name system query that includes the frequently accessed domain name and providing the domain name system query to the communication interface.

10. A method for selectively caching domain name system information on a network gateway that includes a cache, wherein the network gateway is attached to a customer premises equipment that includes a memory, comprising the steps of:

(a) searching files in the memory to identify a frequently accessed domain name;

(b) providing the frequently accessed domain name from the customer premises equipment to the network gateway;

(c) generating, in the gateway, a domain name system query that includes the frequently accessed domain name;

(d) transmitting the domain name system query from the network gateway to a network for resolution;

(e) receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address; and

(f) storing the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

11. The method of claim 10, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated during start-up of the operating system.

12. The method of claim 10, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated periodically by the operating system.

13. The method of claim 10, wherein steps (a) and (b) occur in response to the execution of an application by a user of the customer premises equipment.

14. The method of claim 10, wherein step (a) comprises searching application data files associated with a Web browser application.

15. The method of claim 10, wherein step (b) comprises searching application data files associated with an electronic mail application.

16. The method of claim 10, wherein step (b) comprises packetizing the frequently accessed domain name and transmitting the packetized information to the network gateway.

17. The method of claim 10, wherein step (b) comprises storing the frequently accessed domain name in a management information base and providing the management information base to the network gateway.

18. The method of claim 10, wherein step (d) comprises transmitting the domain name system query to a domain name server on the network for resolution.

19. The method of claim 10, wherein step (c) comprises generating a domain name system query in accordance with an iterative resolution protocol.

20. The method of claim 10, further comprising:

(g) receiving, in the network gateway, a domain name system query from the customer premises equipment; and

(h) resolving, in the network gateway, the domain name system query from the customer premises equipment using a domain name and corresponding IP address stored in the cache.

21. A method for selectively caching domain name system information on a network gateway that includes a cache, wherein the network gateway is attached to a customer premises equipment that includes a memory, comprising the steps of:

(a) searching files in the memory to identify a frequently accessed domain name;

(b) generating, in the customer premises equipment, a domain name system query that includes the frequently accessed domain name;

(c) providing the domain name system query from the customer premises equipment to the network gateway;

(d) transmitting the domain name system query from the network gateway to a network for resolution;

(e) receiving, in the gateway, a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address; and

(f) storing the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

22. A customer premises equipment, comprising:

a memory that stores files, wherein the files comprise application data files that hold frequently accessed domain names;

a communication interface for transmitting information to a network gateway; and

a processor coupled to the memory and the communication interface;

wherein said processor is configured to search the files in the memory to identify frequently accessed domain names and to provide the frequently accessed domain names to the communication interface for transmission to the network gateway.

23. The customer premises equipment of claim 22, wherein the memory comprises a hard disk drive.

24. The customer premises equipment of claim 22, wherein the communication interface is a home phoneline network interface, an Ethernet interface or a Universal Serial Bus interface.

25. The customer premises equipment of claim 22, wherein the application data files are associated with a Web browser application.

26. The customer premises equipment of claim 22, wherein the application data files are associated with an electronic mail application.

27. The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface by packetizing the frequently accessed domain names and providing the packetized information to the communication interface.

28. The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface

by storing the frequently accessed domain names in a management information base and providing the management information base to the communication interface.

29. The customer premises equipment of claim 22, wherein the processor is configured to provide the frequently accessed domain names to the communication interface by generating a domain name system query that includes the frequently accessed domain name and providing the domain name system query to the communication interface.

30. A system for selectively caching domain name system information in a network gateway, comprising:

a customer premises equipment (CPE) including a memory that stores files, a communication interface for transmitting information over a communication path, and a CPE processor coupled to the memory and the communication interface, wherein the CPE processor is configured to search the files to identify a frequently accessed domain name and to provide the frequently accessed domain name to the communication interface for transmission over the communication path; and

a network gateway including a cache, a CPE interface for receiving information over the communication path, a network interface for transmitting information over a network, and a gateway processor coupled to the cache, the CPE interface, and the network interface, the gateway processor configured to receive the frequently accessed domain name from the communication path via the CPE interface, to generate a domain name system query that includes the frequently accessed domain name, to provide the query to the network interface for transmission to a network for resolution, to receive a response to the query from the network via the network interface that includes the frequently accessed domain name and a

corresponding IP address, and to store the frequently accessed domain name and the corresponding IP address in the cache;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

31. The system of claim 30, wherein the memory in the customer premises equipment comprises a hard disk drive.

32. The system of claim 30, wherein the communication path is a home phoneline network, an Ethernet, or a Universal Serial Bus.

33. The system of claim 30, wherein the application data files are associated with a Web browser application.

34. The system of claim 30, wherein the application data files are associated with an electronic mail application.

35. The system of claim 30, wherein the CPE processor is configured to provide the frequently accessed domain name to the communication interface by packetizing the frequently accessed domain name and providing the packetized information to said communication interface.

36. The system of claim 30, wherein the CPE processor is configured to provide the frequently accessed domain name to the communication interface by storing the

frequently accessed domain name in a management information base and providing the management information base to the communication interface.

37. The system of claim 30, wherein the network interface transmits the query to a domain name server on the network for resolution.

38. The system of claim 30, wherein the gateway processor is configured to generate the domain name system query in accordance with an iterative resolution protocol.

39. A computer program product comprising a computer useable medium having computer program logic for enabling a processor in a customer premises equipment to identify frequently accessed domain names to be provided to a network gateway for use in domain name system caching, the customer premises equipment further including a memory and a communication interface, comprising:

means for enabling the processor to search files in the memory to identify the frequently accessed domain names; and

means for enabling the processor to provide the frequently accessed domain names to the communication interface for transmission to the network gateway;

wherein the files in the memory comprise application data files that hold frequently accessed domain names.

40. The computer program product of claim 39, wherein the application data files comprise application data files associated with a Web browser application.

41. The computer program product of claim 39, wherein the application data files comprise application data files associated with an electronic mail application.

42. The computer program product of claim 39, wherein the means for enabling the processor to provide the frequently accessed domain names to the communication interface comprises means for enabling the processor to packetize the frequently accessed domain names and provide the packetized information to the communication interface.

43. The computer program product of claim 39, wherein the means for enabling the processor to provide the frequently accessed domain names to the communication interface comprises means for enabling the processor to store the frequently accessed domain names in a management information base and provide the management information base to the communication interface.

44. The computer program product of claim 39, wherein the means for enabling the processor to provide the frequently accessed domain names to the communication interface comprises means for enabling the processor to generate a domain name system query that includes the frequently accessed domain name and provide the domain name system query to the communication interface.

45. The method of claim 1, wherein the customer premises equipment comprises a personal computer.

46. The method of claim 10, wherein the customer premises equipment comprises a personal computer.

47. The method of claim 21, wherein the customer premises equipment comprises a personal computer.

48. The customer premises equipment of claim 22, wherein the customer premises equipment is a personal computer.

49. The system of claim 30, wherein the customer premises equipment comprises a personal computer.

50. The computer program product of claim 39, wherein the customer premises equipment comprises a personal computer.

IX. Evidence Appendix (37 C.F.R. § 41.37(c)(1)(ix))

To the best of the knowledge of Appellant, Appellant's legal representative, and Appellant's assignee, there has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, nor has any other evidence been entered in the record by the Examiner and relied upon in this Appeal Brief.

X. Related Proceedings Appendix (37 C.F.R. § 41.37(c)(1)(x))

To the best of the knowledge of Appellant, Appellant's legal representative, and Appellant's assignee, there are no decisions rendered by a court or the board because, as identified above, to the best of the knowledge of Appellant, Appellant's legal representative, and Appellant's assignee, there are no other appeals, interferences, or judicial proceedings which may related to, directly affect, or be directly affected by or have a bearing on a decision by the Board in the pending appeal.